

ABSTRACT

An OADM includes optical input and output; first and second bandpass filters with a first pass band, optically coupled to the optical input and output, respectively; third and fourth bandpass filters with a second pass band, optically coupled to reflection ports of the first and second bandpass filters, respectively; first and second cascaded series of channel filter assemblies optically coupled to the transmission ports of the first and second bandpass filters, respectively, and third and fourth cascaded series of channel filter assemblies optically coupled to the transmission ports of the third and fourth bandpass filters, respectively. The OADM may be extended or upgraded so as to accommodate the throughput of additional channels or wavelengths by extending the number of filters within each cascaded series of bandpass filters, where the transmission ports of the additional bandpass filters are optically coupled to respective additional cascaded series of channel filter assemblies.